

Remarks

Favorable reconsideration of this application, in view of the above amendments and in light of the following remarks and discussion, is respectfully requested.

Claims 3-6, 9-16, and 21-40 are currently pending in the application; Claims 3-5 and 9-11 having been amended, dependent Claim 17 having been canceled without prejudice or disclaimer, and new dependent Claims 21-40 having been added, by way of the present response. Applicants respectfully assert that support for the changes to the claims is self-evident from the originally filed disclosure, including the original claims, and that therefore no new matter has been added.

In the outstanding Office Action, dependent Claim 17 was objected to; Claims 3, 4, 9, and 10 were rejected under 35 U.S.C. § 103(a) being unpatentable over Japanese Publication No. 8-160231 (referred to in the Office Action as “Fujikura”); Claims 5, 6, 11-13, and 15-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujikura in view of Japanese Publication No. 2000-19333 (referred to in the Office Action as “Tanji”); and Claims 4-6, 11-14, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanji.

In the Office Action, dependent Claim 17 was objected to as being redundant. In response, Applicants have canceled dependent Claim 17 without prejudice or disclaimer. Thus, Applicants respectfully request that the objection to dependent Claim 17 be withdrawn.

In the Office Action, Claims 3, 4, 9, and 10 were rejected under 35 U.S.C. § 103(a) being unpatentable over Fujikura. Claims 5, 6, 11-13, and 15-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Fujikura in view of Tanji. Claims 4-6, 11-14, 16, and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanji. Applicants respectfully assert that the above amendments to the claims have overcome the rejections for the following reasons.

The present invention is directed to branching methods for optical fibers for an optical fiber cable containing a plurality of plastic optical fibers. Independent Claims 3-5 and 9-11 each recite, among other features, disposing the plurality of plastic optical fibers in a plurality of slots of a spacer, removing a covering of the cable at a single portion of the cable, and cutting a desired optical fiber in the cable at the single portion without cutting the cable in its entirety, at a non-terminal position of the cable, to form a terminal of the fiber.

Regarding the rejection of independent Claims 3-5 and 9-11, Applicants respectfully assert that neither Fujikura nor Tanji teaches or suggests, and the Office Action concedes that neither Fujikura nor Tanji teaches or suggests, the claimed features of a plurality of plastic optical fibers.¹ Thus, Applicants respectfully assert that neither Fujikura nor Tanji teaches or suggests the claimed features of disposing a plurality of plastic optical fibers in a plurality of slots of a spacer, as recited in the independent claims.

Specifically, independent Claims 3-5 and 9-11 recite “disposing the plurality of plastic optical fibers in a plurality of slots of a spacer.”

The Office Action asserts, however, that “plastic fibers . . . are well known in the art,” and references the Office Action mailed on May 7, 2003, which states in relevant part that U.S. Patent No. 4,458,986 to Yuto et al. (Yuto), U.S. Patent No. 4,762,392 to Yamamoto et al. (Yamamoto), and U.S. Patent No. 6,476,951 to White show optical fiber cables using plastic fibers. The Office Action further asserts that therefore “it would have been quite obvious to one of ordinary skill in the art to substitute such plastic fibers” into Fujikura and Tanji. The Office Action still further asserts that “it has been held to [be] within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use.”² Applicants respectfully traverse these assertions for the following reasons.

¹ Please see page 3, line 16; as well as page 6, line 15, of the Office Action.

² Please see from page 3, line 18 to page 4, line 6; as well as from 6, line 16 to page 7, line 5, of the Office Action.

Applicants respectfully assert that each of the plastic fibers shown in Yuto, Yamamoto, and White have an extremely large attenuation even at a wavelength at which the attenuation is minimized. Therefore, Applicants respectfully assert that a practical transmittable distance for each of these plastic fibers is approximately 30 to 40 meters, which is approximately a minimum distance needed to connect between rooms. Applicants respectfully assert, however, that optical fibers are disposed in spacers only when used to transmit over larger distances. Thus, Applicants respectfully assert that contrary to the Office Actions' assertions, it would not have been obvious to dispose these plastic fibers in Fujikura and Tanji, and that these plastic fibers were not known to be suitable for use in Fujikura and Tanji.

Rather, Applicants developed a plastic optical fiber by employing a specific fluorinated resin disclosed in U.S. Patent No. 5,783,636 to Koike. After a lengthy period of development, Applicants achieved the unexpected results of providing for the first time a plastic optical fiber having an extremely low attenuation and therefore having a large transmittable distance (i.e., exceeding 200 meters). Thus, Applicants respectfully assert that prior to Applicants' achievement of the above unexpected results, there was no suggestion or motivation to dispose a plurality of plastic fibers in a plurality of slots of a spacer, as recited in independent Claims 3-5 and 9-11.

As stated in MPEP § 2143.01, “[o]bviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves.” (Underlining added). In this case, for the above reasons, Applicants respectfully assert that the cited prior art does not provide the required teaching, suggestion, or motivation to modify the teachings of Fujikura and Tanji to produce the claimed invention of disposing a plurality of plastic optical fibers in a plurality of slots of a spacer, as recited in

independent Claims 3-5 and 9-11. Rather, as also discussed above, Applicants respectfully assert that the only motivation to modify Fujikura and Tanji is provided by Applicants' disclosure.

Thus, Applicants respectfully submit that the above rejections of independent Claims 3-5 and 9-11 are based on the improper application of hindsight considerations. It is well settled that it is impermissible simply to engage in hindsight reconstruction of the claimed invention, using Applicants' structure as a template and selecting elements from the references to fill in the gaps.³ Recognizing, after the fact, that a modification of the prior art would provide an improvement or advantage, without suggestion thereof by the prior art, rather than dictating a conclusion of obviousness, is an indication of improper application of hindsight considerations. (Underlining added). Simplicity and hindsight are not proper criteria for resolving obviousness.⁴ Further, Applicants respectfully submit that the "fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness."⁵ Therefore, Applicants respectfully assert that an improper "obvious to try" rationale is being applied in the Office Action.⁶ Specifically, Applicants respectfully assert that neither Fujikura nor Tanji teaches or suggests the desirability of the claimed features of disposing a plurality of plastic optical fibers in a plurality of slots of a spacer. Applicants respectfully assert that the Office Action has failed to establish a *prima facie* case of obviousness, and Applicants respectfully submit that the rejections of independent Claims 3-5 and 9-11 under 35 U.S.C. § 103(a) are improper.

Applicants respectfully assert that remaining original dependent Claims 6 and 12-16 are allowable for the same reasons as the independent claims from which they depend, as well as for their own features. Thus, Applicants respectfully request that the rejections of

³ *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

⁴ *In re Warner*, 397 F.2d 1011, 154 USPQ 173 (CCPA 1967).

⁵ See Heading under MPEP 2143.01.

⁶ See MPEP 2145 X.B.

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dependent Claims 6 and 12-16 under 35 U.S.C. § 103(a) be withdrawn and the dependent claims allowed.

Applicants respectfully assert that new dependent Claims 21-40 are allowable for the same reasons as the independent claims from which they depend, as well as for their own features. Specifically, Applicants respectfully assert that new dependent Claims 21-40 recite, among other features, extending a desired plastic optical fiber a specified percentage, or removing a specified length of a covering. Applicants respectfully assert that the claimed features are not taught or suggested by Fujikura and Tanji, in which the non-plastic optical fiber cannot be extended the claimed percentage, and in which a longer length of covering is removed.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 3-6, 9-16, and 21-40 is earnestly solicited.

Should the Examiner deem that any further action is necessary to place this application in even better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

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